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# The Cornell Countryman



*January, 1946*

Volume XLIII

Number Three

## Through Science . . . More for Less . . .



**THE LAND IS BRIGHT.** That's the way it looks to thousands of our returning servicemen who long to buy farms. But economists at Cornell are warning hopeful farm buyers to look before they leap. Classifying land as to its soil, distance from market, climate, and suitability to successful agriculture is a long-term research project. Its small cost is repaid over and over again in savings for servicemen and other farm buyers.

**ENEMIES OF ROSES.** Greenhouse growers are constantly fighting the red spider mite, a potent pest of roses. So when a Cornell research scientist discovered a new weapon against the mite—the use of "azobenzene" as a fumigant—that was good news to growers. Now they may look forward to an expected saving of several hundred thousand dollars a year,—because of an inexpensive piece of research.

**WEEDING CARROTS.** Destroying weeds without destroying the carrots has been a hard and costly job for farmers. But Cornell research scientists, by experimenting with many of the new oil sprays, and by testing them in various localities and under various conditions, have found the best and cheapest sprays, and the wisest way to use them in New York State. Now the cost of weeding an acre of carrots has toboganned from \$100 to \$20.

### Research Bulletins Recently Published or in Press

Better Wheat for New York  
Pasture Experiments with Growing Pullets  
Cost of Producing Milk  
Spacing Affects Yield of Asparagus  
Costs and Returns of the Turkey Enterprise  
Height of Working Surfaces Used in Household Ironing

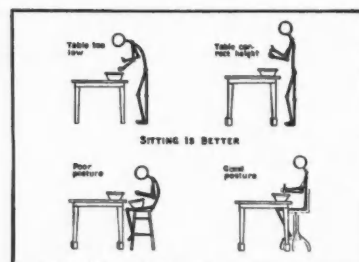
## Research Means More . . .

Returns to farmers and homemakers from their land, their labor, and their money.

Returns to consumers, in cheaper, more abundant, and better farm and home products.



The Cornell University Agricultural Experiment Station  
The State Colleges of Agriculture and Home Economics



**KITCHENS OF TOMORROW.** A good kitchen needs more than streamlining and color magic. Research scientists at the College of Home Economics seek answers to such questions as: "How high should the tables be? Where should the stove be? What are the best height, width, and depth for shelves? Are the appliances where they can be reached and used with the least effort?" The right answers mean more efficiency through saving time, energy, and health. In the long run, this human efficiency gets transformed into satisfaction for the family and even into dollar values.

## The Cornell Countryman

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# Military Psychology Research

## An Interview with Professor L. S. Cottrell

It is pretty generally recognized that in fighting this war our armed forces developed and used a tremendous amount of new technical equipment and adopted many new methods of military operation. Less generally known is the fact that there were new developments in the field of military management and in dealing with problems of morale. One important new development was the maintenance by our army of a large staff of highly trained social scientists who were responsible for the continuous study and analysis of factors that affected the training and fighting morale of our troops. This group of talented sociologists and social psychologists were organized into what was known as the Research Branch in the Information and Education Division. This was the first time in history that an Army employed an agency of this sort and it is of particular interest to Cornellians to know that three members of the Faculty of the University had important responsibilities in the conduct of this work in the Army. Professor Leonard S. Cottrell, Jr. served for three years as Chief Sociologist of the Research Branch. Professor Louis Guttman served as Technical Consultant on problems of measurement of attitudes and opinions. Professor Robin M. Williams served as Senior Analyst. Both Professor Cottrell and Professor Williams conducted a good deal of their research in the European Theatre of Operation.

### Responsibilities

The Research Branch had two general responsibilities. In the first place, it carried on research on problems related to the extensive information, orientation and education programs in the Army. In the second place, it was responsible for conducting research on a wide var-



**Professor Leonard S. Cottrell, Jr.**

Chairman, Dept. of Sociology and Anthropology & Dept. of Rural Sociology

ety of factors and conditions affecting the morale of troops under training conditions and under combat conditions.

In the early stages of the war not all Army leaders could see the utility and importance of this type of research. Some of them doubted the advisability of doing research, for example, which required the surveying of attitudes and opinions of enlisted men or junior officers. However, it was not long before there was general recognition of the importance and utility of the kind of work the Branch could do and wide use was made of its services both in this country and overseas.

### Army Program

The information, orientation and education program of the Army was a tremendous enterprise. Among its far flung activities, the most important which should be mentioned were the following:

The publication of *Yank*, the Army monthly magazine, which had in August 1945 a circulation of two million, four hundred thousand copies.

The conduct of the armed forces radio service which at its peak period was producing an aggregate of one hundred and twenty six programs each week and flying them

out on twenty-one thousand five hundred and seventy-five transcriptions to be broadcast from one hundred and seventy-seven army broadcasting stations.

The operation of an army news service which transmitted eighty thousand words a day to army newspapers all over the world.

The production and distribution of thousands of maps and pocket guides to foreign countries.

The production of a large number of information and educational films for the armed forces.

The operation of discussion programs and the production of booklets and information kits for use in these discussions.

The conduct of correspondence and self-teaching study courses whereby soldiers could continue their academic and vocational education.

After V-E Day the establishment of army university centers and technical schools which provided an opportunity for thousands of soldiers to start their post-war education even before they were able to get back home.

Obviously an operation of this magnitude required a research program which could discover the informational and educational needs and interests of men, recommend plans for meeting these needs and test the effectiveness of the programs which were set up as well as uncover the factors which hindered their efficient operation.

### Branch Put To Work

While the Research Branch invested a great deal of its energies and skills in the foregoing type of research, it did a great deal more work in the analysis of more general problems of military morale. Only a few representative types of problems can be mentioned here out of the hundreds of investigations that were conducted. Representative types of problems were:

Personal adjustment problems of soldiers shifting from civilian life to military life and to the changing demands of the Army as they pro-



gressed toward completion of training.

The relations between officers and men.

Problems of leadership and the building of pride and confidence in one's own unit and its leaders.

Problems of job placement and job adjustment in the Army.

Problems of fear and its mastery.

Problems of screening out men most likely to break down under combat conditions.

The relation between time in combat and fighting effectiveness.

Special problems of occupation troops, including the problems of fraternization.

These and many other types of problems were of great concern to the command and the results of research proved extremely useful in the determination of policy and practice.

#### *Discharge Points*

The work of the Research Branch in developing a plan for establishing priorities for demobilization is perhaps typical of the way research was used in the determination of policy. The Branch was asked to recommend a point system for discharge which would be regarded as just and fair by the majority of the soldiers. By surveying a carefully selected cross-section sample of the Army both in this country and overseas, the Research Branch was able to say with a great deal of precision which of a number of items the men thought should be counted in deciding who should get out first. By treating the responses of the men statistically, it was also possible to decide how many score points should be given to each of the items. This, then, served as a basis for the point system plan which was adopted. After the plan was put into practice the Research Branch was then asked to get the reactions of men to the operation of the plan. In general, it was found that the majority of the men were in favor of the plan but that there were some places in which the plan was not functioning properly. This latter information enabled the Army

to tighten up and make more efficient the operation of the point system. This is a good illustration of the important use of research in establishing a management policy and in checking up on the operation of that policy.

The work of the Research Branch proved useful in the practical field of army administration. It also made contributions to the development of social science methods. In the course of its work it developed new methods in the measurement of attitudes and opinions, new skills in the construction of questions and in the field of sampling. New development in the application of experimental methods in sociology and social psychology took place in the course of the work described. Finally, it served as an excellent object lesson in the value of collaborative research among sociologists, psychologists, psychiatrists, and others.

#### **CORNELL NUTRITION CONFERENCE**

Two hundred and sixty-seven representatives from 25 states attended a conference for feed manufacturers at Cornell sponsored by the Departments of Animal and Poultry Husbandry and the School of Nutrition in cooperation with the American Feed Manufacturer's Association.

The purpose of the conference was to discuss with feed manufacturers the recent developments in nutrition and their application to feeding practice. Through a discussion of problems of mutual interest it was hoped to enhance the services of feed manufacturers and of the college to agriculture.

The program consisted of lectures, informal discussions, and demonstrations. The information given was technical and adapted to the level of trained and experienced men who head research, sales, distribution, personnel and other departments in their own companies.

"What is College Bred, Pop?"

"College bread is a four-year loaf made from the flavor of youth, and the old man's dough."

#### **ELECTRICITY TALKS**

The 84,345 New York farms without telephones may soon have the opportunity to secure cheap telephone service if they have electricity.

The practicability of providing telephone service over the same lines that deliver electricity to rural areas is now being tested in Arkansas with equipment designed by engineers of the Rural Electrification Administration and Bell Telephone Laboratories.

Speech is transmitted to and from homes by means of a carrier wave of radio frequency which travels along with the power supply. Electronic sending and receiving equipment is installed at both the telephone exchange and the subscribers end of the line.

During the past 10 years the number of electrified farms has increased nearly 300 per cent.

#### **EXTENSION SERVICES PLAN FOR NEW YEAR**

"The farm family is the bulwark of a democratic society," said Dean W. I. Myers of the College of Agriculture at the beginning of the annual extension service conference December 10th to 14th. Dean Sarah G. Blanding presided the second morning over the 375 agents, specialists and administrators in 4-H, Home Bureau and Farm Bureau gathered to discuss and plan their programs for the coming year.

President Edmund E. Day, Director L. R. Simons and Dr. Phillips Bradley talked to the extension workers during the five-day conference. There were joint sessions of all extension workers until the second evening when the 4-H, Agricultural and Home Demonstration agents divided into their separate groups to discuss problems in their own fields of work.

Dean Blanding and Dean Myers were initiated into Epsilon Sigma Phi, the extension fraternity. The Woodhull Boys' square dance orchestra played for a dance in the Memorial Room of Williard Straight one evening.

### VIRGINIA DONDERO

Virginia Dondero, president of her junior class and present treasurer of W.S.G.A., has a record that speaks for itself. It begins back in her freshman year, when she joined the Newman Club and Home Economics Clubs and continues up to her senior year. She has been on three Willard Straight committees, Art, Hostess, and Browsing Library.

In spite of this participation in campus life, Ginnie has not forgotten her main purpose for attending Cornell. She's an Institutional Management major, and after graduation in June, she hopes to go into school cafeteria work. She knows that experience will be needed, and is looking forward to managing, for one day, the Green Room in Martha Van Rensselaer Hall.

It wasn't altogether an accident that Ginnie came to Cornell. An uncle and sister graduated from here, and Ginnie has in her possession (and on her wall), a huge banner that her uncle bequeathed her. She's looking forward to passing it on to her nephew who was born last December.

Ginnie enjoys outdoor sports, especially swimming, skiing, and skating. On the thoughtful side, she is partial to classical music and the slow downbeat of Glenn Miller and Vaughn Monroe.

### THREE COUNTY AGENTS HONORED

Charles Radway of Franklin County, Earl Brougham of Green County, and Arthur Shepherd of Dutchess County have been awarded distinguished service certificates by the National Association of County Agricultural Agents for outstanding work in promoting the interests of agriculture in their counties.

Earl Brougham graduated from Cornell in 1914 with a Masters degree, and the others have studied at Cornell. These agents have had practical farm experience. They've been county agents for at least twenty years!

### EASTMAN STAGE & RICE DEBATE

The annual Rice Debate and Eastman Stage speaking contests will be in March during Farm and Home Week.

The preliminary contests for the Eastman Stage is to be in Roberts Assembly Jan. 10, 1946 at 7 P.M.; the Rice Debate will be in Roberts assembly Jan. 15, 1946 at 7 P.M.

The requirements for Eastman Stage state that the contestant must be an undergraduate of good standing in the College of Agriculture and must have a three-minute speech prepared. The rules for the Rice Debate are similar but the student must have prepared a four minute speech on either the positive or negative side of this question: "Resolved; That a Federal law to provide medical care and hospitalization for all on an equitable basis would be a benefit to the farm family."

Contestants must sign up at the Extension Teaching Office no later than noon on the dates of the respective events. Of those who try out, eight will be selected in each event to compete in the secondary elimination contest (Jan. 24 for Stage, Jan. 29 for Rice). The prizes for the final elimination will be one hundred dollars for first prize and twenty-five dollars for second prize.

The Eastman prizes for public speaking were established in 1910, by Mr. A. R. Eastman of Waterville, N. Y. with the objective of developing qualities of personal leadership in rural affairs.

The Rice Debate was established in 1929 by Professor James E. Rice, professor of poultry husbandry, emeritus, to stimulate public discussion on vital farm-life problems.

### ALL TIME HIGH

November milk prices hit an all-time high of \$3.61 per cwt. However, there has been a reduction of farm income from this commodity, as a direct result of a smaller volume of milk delivered during November. This decrease is due to seasonal changes.

### MILK FLAVORS

The prevention of objectionable flavors in milk is of primary concern to the dairy industry, says Professor Vladimir N. Krukovsky of the dairy industry department.

The presence of rancid, bitter and tallowy flavors is the most frequent cause of milk rejection, especially by children. This rejection lowers milk consumption, which, as Secretary of Agriculture Clinton P. Anderson said, is not only the most healthful and nutritious food, but is also one of the main sources of income to farmers.

Recent tests have been conducted to determine the physiological processes occurring in milk. The properties of milk, he said, are affected by exposures to light, oxygen, and temperature. In an effort to eliminate flavors, dairy research workers are trying to determine how flavors develop and what causes them.

Experiments have proven that ascorbic acid plays an important part in the promotion or inhibition of tallowy flavor. Homogenized milk doesn't develop tallowy flavor. If applied to the dairy industry this would be of practical importance, because homogenized milk is more digestible; mothers will not be able to separate the cream for table use, and then feed Junior the skimmed milk which is usually considered less tasty.

\* \* \*

Professor (irritated): "If there are any morons in the room, please stand up." A long pause, and a lone freshman rose.

Professor: "What, do you consider yourself a moron?"

Freshman: "Well, not exactly that, sir; but I do hate to see you standing all alone by yourself."

\* \* \*

"Gosh, you have a lovely figure."

"Oh, let's not go all over that again."

## Arete and Friends



*Left to Right: Standing—Grace Harrison, Pat Keith, Alice Latimer, Emily Palmer.  
Middle Row—Ann Kortright, Audrey MacNall, Mrs. Janet Starr, Mrs. Bristow Adams,  
Professor Bristow Adams, Hope Graff, Bunny Brown.  
Bottom Row—Helen Corbett, Nancy Keller, Sylvia Jackson, Jean Boyd, Pat Kinney,  
Pat Shepperd, Lorraine Warfield.*

Arete means friendship. This is the feeling that the girls who belong to Arete really try to promote, for Arete is a social society on the Cornell campus. Its main purpose is for members to develop friendships in college that will last. While they are in school, the girls want to enjoy each other's company, have fun together, and at the same time do things to be helpful to other people.

Arete was founded in 1917. It is a local society, organized only at Cornell. Both sorority and non-sorority girls may be members. Through the years Arete has had an average membership of about thirty girls. New members are taken in by a system of rushing. Old members send invitations to girls whom they would like to have join and who they think would take an active part in the society. Rushing usually consists of several parties, a semi-formal tea, an informal party, and a pledge breakfast. From the group of rushees, Arete chooses the girls that they think will best carry on Arete's traditions.

Arete has begun this year with an active program. Janet Elwin

Starr was elected President; Pat Shepperd, Secretary; Janet Reed, Treasurer; and Barbara Kendrick, Social Chairman. The members held two informal meetings in which they dressed up and painted old dolls, scrubbed and brushed soiled teddy bears, and made puzzles and games for poor children. These toys were given to the Red Cross to distribute among needy children.

Some of the girls also gathered one Sunday morning in J.P.'s for breakfast together. The biggest social event before the Christmas vacation was a Christmas tea in Risley, Sunday afternoon December 16. Professor and Mrs. Bristow Adams were guests of honor. Former Arete members and friends of active members were other guests. Professor Adams gave a short, informal talk to the girls on traditions at Cornell.

Arete has made many plans for the future which will include rushing and other parties. They hope during the year to establish a program that will give Arete an opportunity to make closer ties among girls on campus.

### CARL ALMQUIST

Carl Almquist, the 1943 inter collegiate wrestling champion in the 155 pound class and the Ivy League batting champion in 1943, is back at Cornell finishing his last two years.

Carl graduated from Alden High School in 1940 and enrolled in Cornell in the fall of 1941. He was awarded the Sears and Roebuck scholarship at the beginning of his freshman year and during that year he earned his numerals in wrestling and baseball. During his sophomore year his accomplishments in wrestling won him a major letter in a minor sport and he had the highest batting average of any man in the Ivy League.

Agriculture and athletics were Carl's majors in high school. He was president of his junior class and voted the outstanding junior which won him a trip to Empire Boys State in 1939. The same year he was elected president of the Erie County Future Farmers of America.

In 1939 Carl won the New York State 4-H poultry judging contest and represented his state at the International Poultry Show where he received an award of excellence for his work. In 1940 he placed second in the F.F.A. poultry judging contest at State Fair and was on the New York State F.F.A. team which judged at the Eastern States Exposition that year.

Carl is now the Steward and Censor of Alpha Zeta Fraternity, member of 4-H Extension Club, Wrestling Club and secretary of the Round-Up Club. He is chairman of the New York State Conference of Older Rural Youth, and on the state executive committee of the Young Cooperators. He has won his first three wrestling matches and will be out for baseball next spring.

\* \* \*

Tessie: "Do you know, that young farmer tried to kiss me? He told me that he had never kissed any girl before."

Bessie: "What did you tell him?"

Tessie: "I said I was no agricultural experiment station."



## STUDENTS RECEIVE AWARDS

Margaret Newell, Home Economics, Max Gurdian, Agriculture, and Henry Doremus, Veterinary Medicine, received the Borden awards for scholastic standing in their respective colleges. Mr. W. A. Wentworth, associated with the Borden Company Scholarship Fund, made the awards and then presented a bronze plaque to the deans of each of the colleges which will contain the names of winners so that visitors and students can see them.

The Borden Awards, of 300 dollars each, are presented every year to the student with the highest average for the preceding three years in 71 colleges throughout the United States—30 colleges of agriculture, 31 colleges of home economics and 10 of veterinary medicine. In addition to maintaining the highest average in their classes the students of Home Ec must take at least two courses in food and nutrition and the agricultural students two in dairy.

These awards have been given in the past only to students of Home Ec and Ag, but this year Veterinary Medicine was designated to receive an award because of its part in improving farming in America.

### *Margaret Newell*

Margaret Newell, who received the award in the College of Home Economics, has had an unusual record. She has worked while at Cornell and has been active in extra-curricular organizations. As a freshman she became a member of the Pi Beta Phi sorority, and was the first Home Ec student to be awarded the LeFebvre scholarship. Since then she has been house president for her sorority, a member of its activities committee and chapter president.

She was Co-Chairman of the Woman's Tea Committee and Senior Representative to the Willard Straight Board. She has participated in student government, having served as house president at 103 McGraw, assistant to the WSGA President and president of her

junior class. Margaret has done, in addition to this, work with the Red Cross and the Home Ec Club. Last year, in recognition of her efforts on the Hill, she was awarded the Danforth Fellowship in Home Economics.

### *Max Gurdian*

The award for the College of Agriculture went to Max Gurdian, a native of San José, Costa Rica. Max is majoring in animal husbandry and, when he graduates in February, plans to do graduate work in dairy industry here at Cornell. After that he will return to Costa Rica where he will operate a farm. Max says that his four years at Cornell have been very enjoyable and that he has received even more from them than he expected. He has made many friends among the students and professors here. His non-scholastic activities have included the Cosmopolitan Club, the Latin-American Club, the Newman Club and the recently reorganized Round-Up Club.

### *Henry Doremus*

Henry Doremus, recipient of the award in the College of Veterinary Medicine, is a graduate student. After earning his A.B. at Dartmouth in '37 he received his Master's degree from Cornell in '38. Later he enrolled as a student in the Cornell College of Veterinary Medicine. He will receive his degree of Doctor of Veterinary Medicine in June. Because the program of the college has been accelerated, there has been little time for outside activities. Those in which he has participated have been exclusively Vet College groups. Henry became a member of Alpha Psi, a professional fraternity for veterinarians only, in 1943. In 1944 he was taken into Phi Zeta, a veterinarian honor society. Henry says that his plans for the future cannot be made definite till spring, but he will probably work for a year with an established veterinarian and then start a private practice.

## VETERANS' INSURANCE BARGAIN

Despite the fact that the veteran's National Service Life Insurance is probably the greatest bargain in life insurance today, many discharged service men are dropping it and making a big mistake, reports Dr. W. M. Curtiss, associate professor of marketing at Cornell University.

"If a veteran needs life insurance or thinks he may need it within a few years, he should hang on to the government policy by all means. Practically all private insurance companies are on record as favoring this."

Dr. Curtiss pointed out several reasons why this insurance is a bargain. Premium rates are lower than for mutual and stock companies, and include a waiver of premiums in case of disability. This feature costs about 75 cents extra per \$1,000 of ordinary life insurance from a private company.

A beneficiary, age 60, can receive a monthly income for life and for 10 years certain, amounting to \$6.81 for each \$1,000 of insurance. For the average of five large New York mutual companies, the guaranteed monthly income, 10 years certain, at age 60, is \$5.01 for a woman and \$5.61 for a man. Thus, says Dr. Curtiss, a \$10,000 National Service policy will provide a guaranteed life income to a widow, age 60, of \$18 a month more than the private companies provide. On this basis, the \$10,000 of veterans insurance is worth more than \$1300 of the usual kind.

"One of the main reasons why the servicemen's insurance is such a bargain is that the government, instead of the individual, pays such costs as: expenses of administration, all costs of excess mortality due to the extra hazard of military or naval service, and the cost of waiver of premiums because of total disability.

"Since the 5-year term policy has been automatically extended to 8 years, a policyholder may keep his

(Continued on page 12)



—Courtesy of American Agriculturist

Cows in the pen stable at Sunnigables Farm, Ithaca

## Comfortable Cows

By JEAN CARNELL

Taking the work out of dairy farming has long been the dream of Northeastern farmers, but at H. E. Babcock's Sunnigables Farm, Ithaca, New York, the dream has become a reality during the past year simply by stabling the cows in a pen and installing a combine milker.

Wishing to go back into the dairy business last year with a minimum of expense, Mr. Babcock decided to try pen stabling. Instead of building the regulation cow stanchions, a large pen—78 ft. by 36 ft.—was cleared on the ground floor of the barn, bedded with long straw, and the cows allowed to run loose. Bunks holding silage and hay were placed around the sides of the pen so that the cattle could eat at will. In a separate room leading from the pen, a "milking parlor" was built at low cost. It consisted of two sets of six stanchions each set at right angles to each other. Here, twelve cows at a time are milked twice a day by two men. The cows are fed grain as they are milked. Four changes are necessary to milk the

46 cows in the herd.

"I don't think I could ever go back to keeping my cows in stanchions," says Mr. Babcock. "There is much less danger of udder injuries, and they're so much more comfortable in the pen." Pen stabling eliminates the daily job of hauling out manure. By the use of a power fork attached to a tractor, the three men on the farm removed the winter's accumulation of manure in four or five days with no back-breaking labor involved.

In October a combine milker was installed in the milking parlor. The milk is drawn directly from the cow into a pipe system which carries it to a row of four cans in the milk house. When one can is full, a floater valve automatically shuts off the flow of milk and the next can is filled. No carrying or straining of milk is necessary—all the farm hands have to do is put the milking unit on the cow and change cans as they fill up, a great saving on leg muscles as they themselves testify. In fact their thinking has been so stimulated that they are now talk-

### TRAINING TECHNICIANS

Among the fifty eight trainees enrolled in the artificial insemination school continuing from Jan. 3 thru 12, there are thirty-five men representing twenty-six counties of New York State. Residents from seven other states, a Belgian, and a Costa Rican are also registered.

The school is conducted primarily to train field technicians for the New York State Artificial Breeding Association. Others attend because training sessions are more frequently held here than in other states.

More than half the time is spent in the actual practice of collecting semen and inseminating cows. The schedule of the training course includes talks and demonstrations by Professors Albrectsen, Brownell, Asdell, Stark, Trimberger, Salisbury, Powell, and Messers. Brandt, Johnson, and Thompson.

59,000 cows were artificially bred during the six years from 1938 to 1944. 40,000 were bred in 1945.

ing about the day when the cows can be milked, fed, and turned back into the pen at the push of a button!





#### ALPHA GAMMA RHO

Walter Baron and Hugh Gregory have established a beachhead for Alpha Gamma Rho on the campus with headquarters in Alpha Zeta. Full scale operations will be resumed next fall, in the A.G.R. house, located at 203 Highland Avenue.

After most of the students' left for service in 1943, the house was leased to the University. At present it is being used as a women's cottage.

This term there are eight members on campus. Members returned from the service and registered in the Ag College are: Donald Webster, James Miller, Malcolm MacDonald, Charles Stansbury, Hugh Gregory and Walter Baron. Harold Critenden and John Cook are members at Cornell in the Marine Corp Reserve. Edward VanZandt and Leonard Borden, both with brothers who were Cornell A.G.R.'s, are pledged.

Alpha Gamma Rho at Cornell was formed in 1914 and it normally has thirty members on campus.

#### CORNELL GRANGE

Glenn Hackney was elected overseer, replacing Robert Place, who left for the Army. Marian Tellier is secretary, and Clement Buckley is chaplain of the Cornell Grange.

Initiation of candidates to membership will be January 15th and 29th. Glenn Hackney, chairman, Jane Benko and Bernard Stanton are a committee planning a Grange square dance in January.

#### ROUND-UP IS ROLLING

William Carter, Oklahoma A. and M., An. Hus. major, is chairman of the committee setting up a student's livestock judging contest for the middle of January. The contest is open to all Ag students, and there will be a junior division for students who have not studied college courses in animal husbandry beyond An. Hus. 1. Winners will receive keys and ribbons.

The club is sponsoring a student's dairy cattle judging contest in February with similar prizes and divisions.

Round-Up is planning on sponsoring the Farm and Home Week Student's Livestock Show. This event gives the student an opportunity to fit and show animals from the University herds, flocks, and stables in competition with other students. Experience is not necessary for participation, and prizes will be awarded in each class.

President Lewellyn Mix urges everyone interested to join the Round-Up Club and to take part in its activities. Application blanks can be had from Professor J. P. Willman's office in Wing Hall. Meeting dates are the second and fourth Tuesdays at 8:00 P.M. in Wing Hall A.

#### HOMEMAKING CLUB

The Home Ec Club Service Committee was host to the Future Homemakers of America at their convention, January 10 to 12 in Martha Van Rensselaer Hall. The Future Homemakers of America is an organization of high school home economic students who will be here to study the latest developments in home economics and to learn about the College of Home Economics at Cornell.

In February, the Home Economics Club will initiate girls who have completed the required work and paid their dues.

\* \* \*

They were looking at a sign in the country store window which read: "Ladies Ready to Wear Clothes."

"Well, it's darn near time."

#### COLLEGIATE F.F.A.

Arthur Masters was elected president of the Cornell Collegiate Chapter of the Future Farmers of America. Other officers elected are Edward Wilmot, vice-president; John Keller, secretary; Horace Brink, treasurer; Hollis Hatfield, watchdog; David Huntington reporter; Frederick Tripp, Ag-Domecon representative, and Dr. Roy Olney, chapter advisor.

Mr. John Mack, Vocational Ag teacher at Ithaca High School and president of the New York State Association of Teachers of Agriculture, led a discussion on F.F.A. activities. Professor E. R. Hoskins provided refreshments for the group.

Regular meetings will be at 7:45 P.M. on the first and third Thursdays of each month in room 201, Warren Hall. All former F.F.A. members and students preparing to teach Vocational Agriculture are invited to attend and participate.

#### BULL MERRY-GO-ROUND

The "contented cow" of song or story may graze or rest as she pleases, but her father, and possibly her husbands or sons at the New York Artificial Breeders Co-operative here must be exercised daily. It isn't left to chance.

One of the latest devices for exercising bulls is used at headquarters of the state association where about 600 of some of the country's outstanding sires have been collected.

The mechanism resembles a merry-go-round, with long overhead spokes that reach out from the central unit or hub. Mr. Bull is attached to the end of the spoke by a rope and chain which passes through a ring in his nose.

As the spokes of the wheel revolve, the animal is urged onward by the pull in his nose, or the approach of the next bull, as he goes slowly around.

Six bulls are exercised at one time on the electrically driven machine. Each bull travels about a mile a day, walking at least half an hour, six days a week.

## The Man With The Turban

Daljit Singh Sarkaria, Indian born student now attending the College of Agriculture, is known to most of us as "the man with the turban." His home is in the Patiala State, governed by a native prince, where most of the peasants are farm owners. Mr. Sarkaria said that the problem of educating the Indian farmer is great. Because of family tradition and the fact that most farmers can neither read nor write, demonstration methods will be the only plausible way to teach modern agricultural practices to the farmer.



Daljit Singh Sarkaria

### Training To Be Used

Mr. Sarkaria, now a graduate student in the entomology department, is doing research on the mode of entrance of D.D.T. residues into flies. When Sarkaria returns to India, he will be expected to reorganize the agricultural department of his state. In line with this, he may spend six months in Washington observing the organization of the U.S.D.A. Upon his return to Patiala, he may also be appointed chief state entomologist, in charge of pest control and insect toxicology.

### Past Training

After ten years of private schooling, in 1937, Mr. Sarkaria was awarded the Faculty of Science degree. He then joined the Honor School in Zoology at Lahore, India, and received his bachelor's degree with honors, in April 1942. He was awarded a University scholarship to do research work for his Master's degree at the Government College, and at the same time he instructed in the Zoology department.

Mr. Sarkaria expected to leave India in October 1944, but due to wartime restrictions, his plans were delayed. For a time he attended the Imperial Agricultural Research Institute at New Delhi, doing post graduate work in entomology. He arrived in America in August, 1945.

### Crops In Northeastern India

When asked which crops grow most successfully in his home region,

he replied that wheat, cotton, sugar cane, leguminous plants, oilseed and forage crops are raised in abundance. The farmers' income depends on these cash crops. Said the Indian-born student, "Here in the northeastern United States, farmers may depend on dairy cattle for their income. In my section of India, only one or two milk cows are kept by each family."

The main diet of the Indian farm family and poorer townspeople consists of milk, butter, other milk products, and some vegetables grown in small gardens. Rice is not grown in Patiala to any degree, being more adapted to the Eastern provinces. Corn is not a regular foodstuff. Occasionally roasted, it is never boiled.

### Tenant System

Tenant farmers pay their landlords with crops or cash, depending on the quality of the land. Although a landowner may wish to break up the tenant system in his district, he does not always have the legal right to do so. His land and his home are ancestral property, to be handed down to the next generation.

No machinery is used on farms in that region, nor are horses used in agricultural pursuits. Excellent strains of riding horses are found there, and horses are often used to pull carts and carriages. Bullocks are used for heavy agricultural work.

### More Will Come to Learn

Within the next few months, three other Patiala students will be sent to American colleges to study various aspects of plant breeding, fruit preserving and canning, and electrical and mechanical engineering. These men will, upon their return to India, assist in the reorganization of agricultural activities within their state.

### MORE FARMS IN NEW YORK

New York State has gained 120 farms and 551,744 acres in farmlands since 1940, according to the preliminary figures compiled in the 1945 Census of Agriculture. The number of farms in the 62 New York counties increased one-tenth of one per cent, and farm acreage increased 3.2% from 1940 to 1945. The greatest gain was in Dutchess County, with Ulster County running a close second. Fulton County experienced the greatest loss in farmland—nearly 13,000 acres.

### WHO IS A FARMER?

For purposes of the Federal income tax, a farmer is defined as an individual who receives two-thirds of his gross income from farming.

### VALUABLE LABOR

You can obtain more results from labor put into selecting your crop seeds carefully, than from any other farm practice.

### SEQUOIA POTATO YIELDS

Sequoia potato averaged 400 bu. per acre in New York State which is the highest average yield this year, according to Dr. E. V. Hardenburg.

Sequoia is subject to hollow heart or over-size, but these can be controlled by putting on less fertilizer and digging them early. Sequoia, if grown properly, can be a much more successful crop than Katahdin, which is grown by forty-five per cent of New York State farmers.

## Former Student Notes



Early Days on the Ag Campus

The girls in the 1944 class of the College of Home Economics seem to have been doing one of two things—either keeping the job they had last year, or getting married.

Last spring, April 8, 1945, *Joyce Cook* was married to Leonard Bertelsen . . . In August *Ruth Leonard* and *Richard Claassen*, also a Cornellian, were married . . . *Anna Hutter*, another August bride, is now Mrs. Bryce MacDonald, Jr. . . . September saw the wedding of *Betty Jane Finney* and John William Ekegren of Johns-Mansville Corp. They are now living in Massachusetts . . . *Marion Beatty* has become Mrs. George A. Parsons and *Marjorie Beha*, Mrs. Robert Lopez . . . The most recently wed of the '44 girls was *Ann Marie Lynch* who was married to Robert J. Pape, Lt. j.g., USNR, on December 15.

There are a few exceptions to the rule of "Marriage or the same job." *Fern Bruggeman* has become Dietitian in charge of the main kitchen at the Pennsylvania Hospital in Philadelphia . . . *Nancy Maynard*, after finishing her Army course, was made a Second Lieutenant in the Army Medical Corps. She is stationed at Tilton General Hospital, Camp Dix, New Jersey as a Medical Department Dietitian.

In November *Marcia Hutchins*,

who was on the staff of the College of Home Economics last year as an Assistant in Foods and Nutrition, was appointed an Assistant in Research at the Sealtest Laboratory in New York City. *Barbara Chapin* is a nursery school teacher at Shady Hill School, Cambridge, Mass. *Mary Murshon*, who is now Mrs. William Hoffmann, is serving as Assistant Fashion Co-ordinator with Frank and Seders in Pittsburgh. *Marion Scott* is an Engineering Assistant in the Marine and Aeronautics Engineering Division of General Electric at Schenectady.

*Elizabeth Kehoe* is the Assistant Home Demonstration Agent with the Home Bureau in Syracuse.

*Margaret Sturgess* has followed the example set by the Class of '44 by marrying James Dietsche on October 21 . . . *Dorothy Kellogg*, Mrs. Louis Conti, has done even better—on September 3, she presented Mr. L. C. with a son, Paul Louis Conti.

R. A. Rasmussen, who finished his graduate work in animal nutrition in 1938, is now working for Hiram Walker & Sons of Peoria, Illinois, as a nutritionist.

Another graduate student, of 1934 vintage, Victor Heiman, has returned from his three years in the Army to resume his position as Di-

rector of Research with the Kasco Mills in Waverly, New York. As Director of Research he formulates feeds and works on improving farm feeding in his area. He is returning to a new plant that is being built to replace the one that was recently destroyed by fire.

A. E. Schumacher, a graduate student of 1936-1940, is working with the Consumers' Co-op in Kansas City.

D. K. O'Leary, who earned his doctor's degree in foods in 1936, is now a research biologist, working with feeds and fertilizers at the Du Pont Experimental Station.

H. R. Merritt, Jr., '40, is employed by Griggs and Ball in East Aurora.

Eileen M. Smithers, associate 4-H agent in Onondaga, and Max Exner, former extension specialist in music and veteran of the African and Italian campaigns, were married November 9th, at Hendricks Chapel, on the Syracuse University Campus.

Gordon G. Butler, editor of the Cornell Countryman 1940-41, is now living in Madison, Wisconsin. He was recently discharged from the Army after sixteen months in Italy with the 88th division. This fall he married Ruth N. Simonsen, graduate of University of Wisconsin, where Gordon received his M.S. in Agricultural Economics.

Bill Updike, who graduated in the fall of 1942, is in the Army Air Force, ground armament. He plans to enter graduate school here upon his discharge.

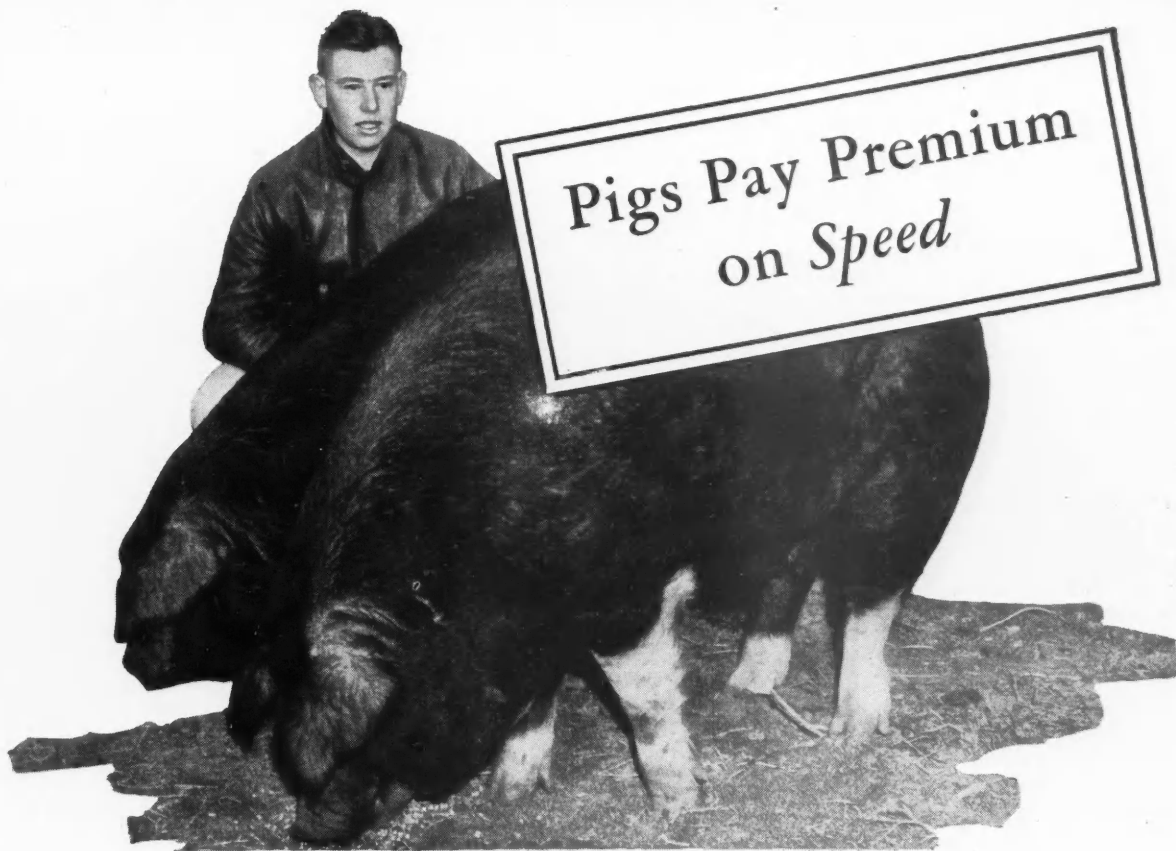
Gerald Nuffer is now flying an OAD Catalina and an B-17 in the Air-Sea Reserve.

Gunvant Patel, who took a Ph.D. here in Entomology, has left for India.

Jefferson Rougel has gone to Brazil.

Robert Place, president of the 4-H Club and overseer of the Grange, has been drafted and is now in the Army.

Jim Beneway was elected president of the Rural Youth Federation of America. He is farming at his home in Ontario, New York.



**A** pig is not very smart, but there is one lesson he can teach you. The kind of speed that counts in a pig is not how fast he can run but how much pork he can produce in 180 days. The faster he gains, the greater the returns he gives you for feed and care.

When you are a farmer, the secret of your success will not be just how fast you hustle and how hard you work. It will rather be the amount that you produce in 180 days, or whatever is the length of your farming season. It will depend on how much your work is made effective by agricultural training,

by good management and good machinery.

The American system of free schools offers you all that you are willing to learn about the natural sciences which are the foundation of modern farming. The American system of free opportunity and free competition offers you the world's finest and fastest farm machines. With full freedom to choose his methods and his equipment, the American farmer produces more and earns more than any other farmer on earth.

To enjoy these freedoms is your heritage. To preserve and strengthen them will be your responsibility.



# CASE

**Speed in Machinery** means more than width of cut and miles per hour. It also means ability to keep going when conditions are bad, ability to do a good job in all crops and conditions, endurance to get things done on time. Building that kind of farm machines has been our business for over a century. J. I. Case Co., Racine, Wis.



Mr. Albert J. Davis dropped into the Cornell Countryman office the other day, while on a vacation in Ithaca. He is working at the Naval Air Station in Seattle, Washington. Mr. Davis worked on a poultry farm while attending Cornell. In 1915, he said, there were only three buildings. At the time they were excavating for the Drill Hall, and there were just a few farm buildings.

Ersine Truesdale, who worked in the Artificial Breeding Station here last summer, is now on his way to Marion, Ohio, where he will work as herdsman for a large dairy farm. He left the University last term but expects to return next fall with a lot more experience and ability.

'33

Emil J. Kahabka has spent the last eight years with the United States Soil Conservation Service. He is now located at Waterloo, New York.

'40

Wilson Mitchell is teaching agriculture at King Ferry Central

School, King Ferry, New York. He is married to Elizabeth Lewis, '40, Home Economics, and has two children.

'44

Rita Shaw, Home Economics, is now teaching at Bath High School, Bath, New York.

Robert Green entered the Army in his Junior year, in 1942. He served in the United States Field Artillery, and was killed in action in France in the summer of 1944, gallantly serving his country.

Second Lieutenant Edward Markham, who left Cornell in March of 1943 to enter the Army Air Forces, stopped here the other day on his way to Moody Field, Ga. Ed has been transferred from bombardier to radar operator, and he hopes to be back at Cornell next term to finish his senior year majoring in Animal Husbandry.

#### VETERANS' INSURANCE

(Continued from page 6)

term policy in force for 8 years after he first took it out at the rate he

originally paid.

The term policy, according to Curtiss, may be converted to ordinary life, 20-payment life, or a 30-payment life policy of the same or less amount within the 8-year period. He may start paying premiums on his new policy as of his age at conversion, or at an earlier date by paying the reserve that would have accumulated if he had taken it out earlier.

In addition, said the marketing professor, there are liberal provisions for reinstatement of lapsed policies. Another point to remember is this: "While in the service, premiums were usually paid monthly and continue that way unless the insured specifies another method. The veteran may find it more convenient and he will save a little interest by paying the premiums quarterly, semi-annually, or annually."

Dr. Curtiss says he attempted to verify all statements reported here, but can assume no liability if they happen to be incorrect.

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of the SURGE to young heifers or old cows—to easy or hard milkers—brings a quick response for faster, thorough milking.

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**NOW WE KNOW**

The Norton Printing Co. played host to the staff of the Cornell Countryman one afternoon and they certainly showed us around. Compets as well as staff members saw the different sets of type, how the printer sets the print, makes the galleys, locks the page proofs. We saw the presses run; we marvelled at the machines that cut strips of metal more easily than your knife went through the steak last night; we gaped at the intricacies of the machine that knows how to flip the pages over and make them come out in the right order.

I wonder how many of you know what happened before this magazine appeared under your eyes?

J. W.

**LET'S LOOK AT THE RECORDS**

Read the records of dairy production — Holsteins lead in every official age class for the production of milk and butter fat by registered cows. You owe it to yourself to study the Holstein cow as a profit producer for your farm.



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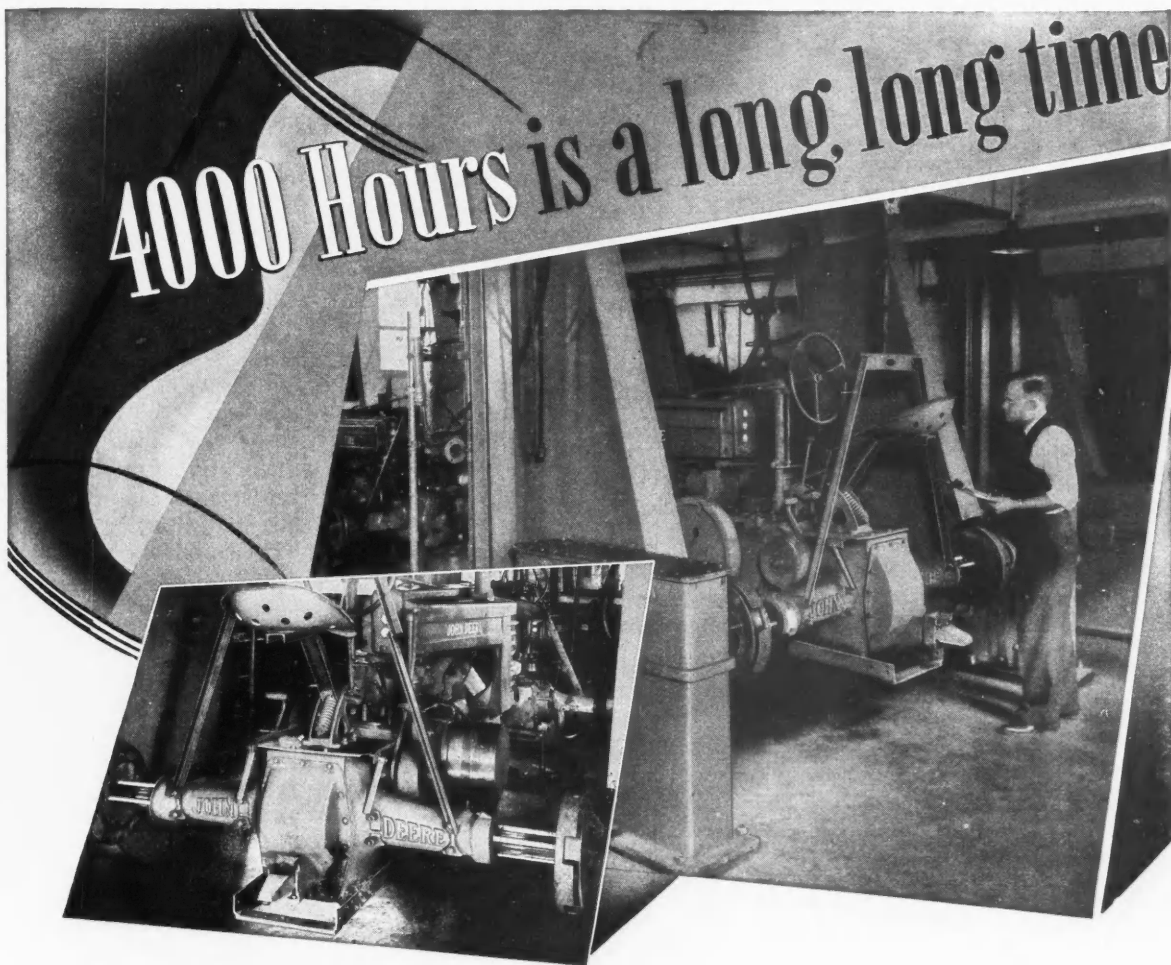
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*No matter what the occasion. Hallmark and the Triangle have the card.*



Open till 8:30 P.M. Est. 1903 E. J. Morris, Prop.

4000 Hours is a long, long time



**F**OUR thousand hours is a long time to keep a tractor operating at high speed, at peak load. But, that is the break-down test new models of John Deere Tractors must pass before they are ready for production—4,000 hours without failure.

Note in the illustration above that the rear wheels of the tractors have been removed and pulleys adjusted on the axles. The belts operating on those pulleys enable the engineer to fix resistance to a point where the tractors are “pulling” against a full load. Then, with throttle wide open, they are run continuously twenty-four hours a day, seven days a week, for the full period of four thousand hours . . . more than five months.

Constant checks are made throughout the period on the horse-power developed, oil and fuel consumed, and other vital factors. Then, the tractor is torn down to determine if any excessive wear appears. When that test has been passed successfully, the tractor is ready to go into production and proudly don the John Deere name plate.

Such high requirements of perfection and durability are characteristic of the John Deere organization, which operates today on the same basis of integrity of manufacture as it did in the days when its founder said, “I will never put my name on anything which hasn’t in it the best that is in me.”

*There is no substitute for the accumulated experience gained through more than a hundred years of single-minded devotion to the manufacture of better farm implements.*

**JOHN DEERE**

*Moline, Illinois*

# Up To Us

## The Flood Is Full

I stopped for a moment this morning and watched the water come over the falls and flow under the bridge in the gorge. The water never stopped going by. As I watched I saw a log being carried over the dam and down thru the gorge so rapidly that if I had looked away for an instant I never would have seen it pass.

The wood in that log was valuable and now it is lost in the gorge. I thought of the job it would be to put that log back in the dam after it had gone over.

Life is like that. Time goes on and on and man becomes bored. Important things go over the dam unnoticed or covered by muddy waters. Then after the splash, man sees the damage done and realizes how hard a task it is to put the log back over the top of the dam.

Right now the world has problems; time goes on and water flows over the dam while we sit back and occupy ourselves with petty pleasures and troubles.

Are Russia, Great Britain, China and the United States going to lead and govern the world? Are the men of this country going to wear uniforms forever under the excuse of compulsory military service? How are we going to make up for the subsidies? Will labor become so powerful that it can take over government? Are we going to cut back on production, and be paid for it, while people still go hungry?

The flood is full of important issues. Let's talk them over. Lift the log out of the water so that others will see.

## Busting Department

"I hate Chemistry," sobbed Betty as she lay her head on her desk. Beside her on the table was a bust notice—Chemistry 48.

Six hours of chemistry are required for Betty to graduate. All her other marks are above 80 yet chemistry can prevent her from getting a degree.

Betty is not alone. The per cent of students, not in the chemistry department, who fail chemistry is disgraceful. According to past records agricultural students do not have even a 50-50 chance of passing chemistry with a grade of 70 which is required as an average of all courses to remain off probation. Students can not be entirely at fault for this situation.

*The Chemistry Department is paid to teach chemistry and not to bust students.* One department should not have the power to prevent a student from getting the degree his college has considered him worthy of.

A knowledge of chemistry is important because it gives the student an idea of exactness and a clearer understanding of his environment and how it functions. Therefore the reasons for the high percentage of busts must be found and the causes remedied.

*Is the course poorly taught and managed?*

Too much material is covered for the hours spent

in class. In many of the laboratory periods the students are given too many experiments to complete during the allotted time. Instructors have physically forced students to leave at the end of the inadequate session. The lectures are the same. The lecturer has a race with time from the beginning to the end of the hour.

The time and credit hours allotted for these courses should be increased or each college should determine how much and what parts of chemistry it wants the students to know. Then the unnecessary parts should be cut out of the the present courses.

The chemistry department uses graduate students for instructors. *Many of them come to Cornell to get degrees, not to teach chemistry.* Instructing is their way to earn money to pay the expenses in getting a degree. A sarcastic instructor is a poor teacher and leaves a bad taste in every student's mouth.

These chemistry courses consist of lectures, recitations, and laboratories. Thus a student can have one person for lecture, another for recitation, and a third for laboratory. These persons have three different ideas of what to teach and how to teach it. What the lecturer doesn't cover he assumes is covered in laboratory or recitation. However, those instructors assume the same thing. Thus, the student doesn't know which way to turn, and this confusion adds to the number of failures.

*Are the students to blame?*

Yes, in part. Students are prejudiced against the chemistry department before they ever take a course. This has been built up because of their friends' past experience. Students have got to overcome this and then put enough time in on the chemistry courses so their average will increase. The consultation periods should be used to clear up questions.

The faculty should study this situation immediately and then act to correct the causes.

## Congratulations

The Countryman has elected four new members to the staff.

To the Editorial Board are:

Vivian Hoffman, '48, elected in December. She has had experience in writing. Her article "Our Junior Freshmen" was in the November issue.

Jean Kahles, '49, has had two years of experience writing high school news for her city newspaper.

On the Circulation Staff is Sylvia Alessandrini, '49, who was circulation manager of her high school magazine.

On the Business Staff is John Sterling, '48, who is active on the campus and is treasurer of the 4-H Club.

We congratulate these students because they have proven their value in producing this magazine. They now have a responsibility which will give them practical training in Journalism and business.





# CAMPUS NEWS

RESEARCH AND ENGINEERING KEEP  
GENERAL ELECTRIC YEARS AHEAD

## CHEMISTRY AT GENERAL ELECTRIC

**G**IVE a young chemist access to a well-stocked laboratory and modern equipment, and the example of such General Electric scientists as Dr. Irving Langmuir, Dr. W. D. Coolidge, and Dr. W. R. Whitney, and two things are likely to happen. First, he will find satisfaction in his work, and second he will come up with something new and useful.

In the G-E Research Laboratory have been born the ideas that have developed into many improved chemical products. And in the Pittsfield and Schenectady laboratories of the newly established Chemical Department, groups of young chemists are conducting research and development in some of the most promising fields of chemistry.

### Opportunities in chemistry

From finding insulation for electrical products to becoming the world's largest manufacturer of finished plastics products is a long step forward in the chemical field. G.E.'s expansion into chemistry—brought about by the discovery of new compounds—was inevitable. The new field of silicones alone presents infinite possibilities of

research and development. It already yields oils, greases, insulation, resins, rubber, and water repellents—all with unusual new properties.



Any phase of chemistry—research, development, design, engineering—is open to the G-E chemist. A chemist interested in development carries the ideas of research

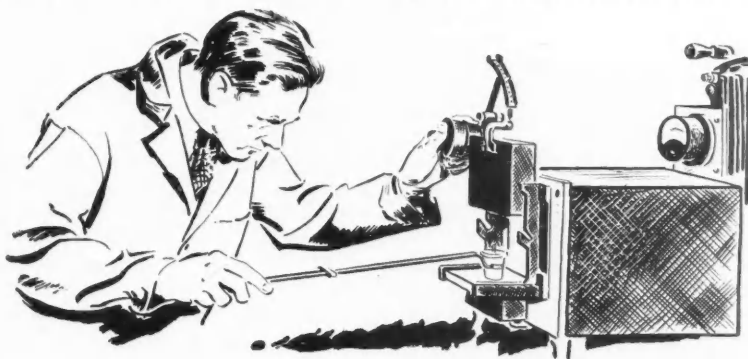


through to practical products. He may develop plastic foam, find new uses for an old product, study the reactions of a by-product of some chemical process, and have the satisfaction of seeing his idea through to the pilot plant stage.

The chemical engineer works with the equipment that processes the chemicals. His job is to design and control the equipment in a chemical plant or pilot plant. In this work he must be able to understand all factors affecting the production of a commodity and to direct and co-operate with the men who are doing the actual work in the plant.

### G. E. looks ahead

At present G.E. is planning the construction of five new Chemical Department plants, including one for the manufacture of silicones. And the rate and character of the growth of this new industry depend to a great degree upon the ability and enthusiasm of the young men who will fill the positions made available by peacetime expansion. *General Electric, Schenectady, N. Y.*



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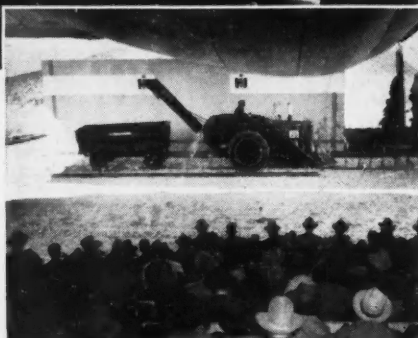
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## PREVIEW OF PROGRESS



This isn't a State or County Fair display you see here—such exhibits of what's coming in farm equipment will have to wait until next season. But this show gave several thousand guests a close-up of the newest developments in mechanized farming. Here, at the Harvester experimental farm in Hinsdale, Illinois, deans of agricultural colleges and the editors and newswriters of the rural and metropolitan press got a preview of Harvester's progress in making the farm a more profitable and more comfortable place to live and work.

They saw postwar farm machines *perform*. Everything from the new McCormick-Deering Cotton Picker to the new Farmall Cub tractor was



The upper scene is a general view of the International Harvester demonstration of postwar farm equipment at the Hinsdale, Ill., Harvester experimental farm. The lower picture was taken in the grandstand during a "performance" of the new Cut-Off Corn Harvester-Picker.

put through its paces before the grandstand. These demonstrations projected a vivid picture of tomorrow's farming operations.

Many of these new machines are not yet in production. It will be some time before every farmer will be able to get all the new machinery he needs. But when that time comes, he will be able to get

the newest in farm equipment—Harvester-built farm equipment. That means not only the most improved design but also that the equipment is *tested and approved*. The IH emblem is the American farmer's assurance of quality.

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